

Claims

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1 A method in a machine (20) for producing or finishing/converting paper/board or pulp, the method comprising

- 5 - monitoring and storing properties of various components of the machine (20)  
- monitoring and storing the changes taking place in the properties and/or the ambient conditions and the changes taking place in them  
- transmitting this stored data to the control unit (10) of the machine (20) and/or to a separate data processing system (4),

10 characterised in that the method further comprises the steps of

- (i) arranging in the component (1), a memory unit (2) which accompanies the component (1) when the component (1) is a functional part of the machine (20), in which memory unit (2) can be written and which can be read electrically, by magnetisation or optically;
- 15 (ii) storing in the memory unit at least those properties (A) of the component (1) which effect on the control values of the machine (20), said storing taking place in connection with the manufacture or servicing of the component (1) in question before the component (1) is taken for installation into the paper/board or pulp or finishing/converting machine (20), or taken
- 20 to be stored for later use as a functional part of the machine (20);
- (iii) transmitting the data stored in the memory unit (2) to the control unit (10) of the paper/board or pulp or finishing/converting machine (20) and/or the separate data processing system (4) which is used for serving data to the control unit (10),

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2. A method as claimed in claim 1, characterised in that between the control unit (10) and the separate data processing system (4) are arranged data transmission means (11a, 11b) for transmitting data from the data processing system (4) to the control unit (10) and from the control unit (10) to the

30 data processing system (4).

3. A method as claimed in claim 1 or 2, characterised in that the component (1) comprises at least one sensor (6, 7, 8) observing the state of the com-

ponent (1) and/or its ambient conditions, which sensor is connected to the memory unit (2), and the data (B) obtained from which concerning changes in the component (1) and/or its ambient conditions are stored in the memory unit (2) in the component (1) in question.

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4. A method as claimed in any of the claims 1 to 3, characterised in that in the memory unit (2) is continuously stored an amount of data (B) corresponding to a certain time interval which is obtained in an essentially uninterrupted manner from at least one observing sensor (6, 7, 8).

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5. A device for monitoring and storing the properties of various components (1) of a paper/board or pulp and finishing/converting machine (20) and the changes taking place in them and/or the ambient conditions and the changes taking place in them, and for transmitting this data to the control unit (10) of the paper/board or pulp or finishing/converting machine (20) and/or to a separate data processing system (4), characterised in that in the component (1), which is a functional part of the machine (20), is arranged a memory unit (2) accompanying it, in which can be written and which can be read electrically, by magnetisation or optically, in which memory unit can be stored at least those properties (A) of the component (1) which effect on the control values of the paper/board or pulp or finishing/converting machine (20) in connection with the manufacture or servicing of the component (1) in question before the component (1) is taken for installation into the paper/board or pulp or finishing/converting machine (20), or taken to be stored for later use as a functional part of the machine (20), and that data transmission means (9b, 3b) have been arranged for transmitting the data stored in the memory unit (2) to the control unit (10) of the paper/board or pulp or finishing/converting machine (20) and/or the separate data processing system (4) which is used for serving data to the control unit (10).

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6. A device as claimed in claim 5, characterised in that between the control unit (10) and the separate data processing system (4) have been arranged data transmission means (11a, 11b) by means of which data can be

transmitted from the data processing system (4) to the control unit (10) and from the control unit (10) to the data processing system (4).

5 7. A device as claimed in claim 5 or 6, characterised in that in the component (1) has been arranged at least one sensor (6, 7, 8) observing the state of the component (1) and/or its ambient conditions, which sensor is connected to the memory unit (2), and the data (B) obtained from which concerning changes in the component (1) and/or its ambient conditions has been arranged to be stored in the memory unit (2) in the component (1) in question.

10 8. A device as claimed in any of the claims 5 to 7, characterised in that in the component (1) is a roll and the information to be stored in the memory unit (2) which accompanies the roll concerns at least one of the following: diameter of the roll, weight of the roll, deflection of the mantle of the roll, the composition of the surface material of the mantle of the roll, surface roughness of the roll, hours of operation of the roll and operations carried out during the servicing of the roll.

15 9. A device as claimed in any of the claims 5 to 8, characterised in that in the memory unit (2) can be continuously stored an amount of data (B), corresponding to a certain time interval, which is obtained in an essentially uninterrupted manner from at least one observing sensor (6, 7, 8).